

Amendments to the Claims

1. (Currently amended) A method of for eliciting an immune response against enhancing the immunogenicity of an antigen in a mammal, the method comprising: administering to the mammal intramuscularly, intravenously, transdermally or subcutaneously, a fusion protein comprising an antigen linked by a polypeptide bond to an immunoglobulin heavy chain constant region whose ability to bind an Fc receptor is not modified by mutation, thereby to elicit an immune response against the antigen, wherein the fusion protein lacks an immunoglobulin variable domain and the antigen is selected from the group consisting of Prostate-Specific Membrane Antigen, an ectodomain of a cytokine receptor, a viral protein and a tumor-specific protein, the antigen of the fusion protein eliciting a stronger immune response in the mammal than the antigen alone.
2. (Previously presented) The method of claim 1, further comprising administering the fusion protein in combination with an adjuvant in an amount sufficient to enhance the immune response against the antigen of the fusion protein relative to the immune response against the antigen of the fusion protein administered without the adjuvant.
3. (Original) The method of claim 2, wherein the fusion protein and adjuvant are administered simultaneously.
4. (Original) The method of claim 2, wherein the adjuvant comprises a fusion protein comprising an immunoglobulin heavy chain constant region linked by a polypeptide bond to an adjuvant protein.
5. (Original) The method of claim 1 or 4, wherein the immunoglobulin heavy chain constant region comprises an immunoglobulin hinge region.
6. (Original) The method of claim 5, wherein the immunoglobulin heavy chain constant region comprises an immunoglobulin heavy chain constant region

domain selected from the group consisting of a CH2 domain, a CH3 domain, and a CH4 domain.

7. (Original) The method of claim 5, wherein the immunoglobulin heavy chain constant region comprises a CH2 domain and a CH3 domain.

8. (Previously presented) The method of claim 1 or 4, wherein the immunoglobulin heavy chain constant region is an immunoglobulin heavy chain constant region present in the same species as the mammal.

9. (Previously presented) The method of claim 8, wherein the immunoglobulin heavy chain constant region is a human immunoglobulin heavy chain constant region.

10. (Canceled)

11. (Original) The method of claim 4, wherein the adjuvant protein is a cytokine.

12. (Previously presented) The method of claim 11, wherein the cytokine is a cytokine present in the same species as the mammal.

13. (Original) The method of claim 12, wherein the cytokine is a human cytokine.

14. (Original) The method of claim 1, wherein the mammal is a human.

15. (Currently amended) A composition for eliciting an immune response against an antigen in a mammal, the composition comprising:

an adjuvant; and  
an antigen fusion protein comprising an antigen linked by a polypeptide bond to an immunoglobulin heavy chain constant region whose ability to bind an Fc receptor is not modified by mutation, wherein the antigen fusion protein lacks an immunoglobulin

variable domain and the antigen of the fusion protein is capable of eliciting a stronger immune response in the mammal than the antigen alone, wherein the antigen is selected from the group consisting of Prostate-Specific Membrane Antigen, an ectodomain of a cytokine receptor, a viral protein and a tumor-specific protein, the composition being formulated for intramuscular, intravenous, transdermal or subcutaneous administration.

16. (Previously presented) The composition of claim 15, wherein the adjuvant comprises a fusion protein comprising an immunoglobulin constant region linked by a polypeptide bond to an adjuvant protein.

17. (Canceled)

18. (Previously presented) The composition of claim 15 or 16, wherein the immunoglobulin heavy chain constant region comprises an immunoglobulin hinge region.

19. (Original) The composition of claim 18, wherein the immunoglobulin heavy chain constant region comprises an immunoglobulin heavy chain constant region domain selected from the group consisting of a CH2 domain, a CH3 domain, and a CH4 domain.

20. (Original) The composition of claim 18, wherein the immunoglobulin heavy chain constant region comprises a CH2 domain and a CH3 domain.

21. (Original) The composition of claim 15, wherein the adjuvant comprises an oligonucleotide CpG sequence.

22. (Canceled)

23. (Canceled)

24. (Previously presented) The composition of claim 15, wherein the adjuvant comprises a cytokine.

25. (Original) The composition of claim 24, wherein the cytokine is a human cytokine.

26. (Previously presented) The composition of claim 15 or 16, wherein the immunoglobulin heavy chain constant region is a human immunoglobulin heavy chain constant region.

27-46. (Canceled)

47. (Previously presented) The composition of claim 16, wherein the adjuvant protein is a cytokine.

48. (New) The method of claim 1, wherein the fusion protein further comprises an adjuvant linked by a polypeptide bond to at least one of the antigen and the immunoglobulin heavy chain constant region.

49. (New) The composition of claim 15, wherein the adjuvant is linked by a polypeptide bond to at least one of the antigen and the immunoglobulin heavy chain constant region.